coma was estimated at €627/year. Independent cost drivers were IOP ($p < 0.001$), MD ($p < 0.001$), ÄMD ($p = 0.03$) and PEX ($p < 0.001$). Prevalence of PEX was associated with 21% higher costs. Each one-unit increase in mmHg (IOP), decrease in dB (MD) or ÄdB/year (ÄMD) increased costs by 2.9 %, 1.2% and 5.7%, respectively. Patients that had visited a low-vision centre at least once had 46% higher annual costs than the average patient. **CONCLUSION:** MD, ÄMD, IOP, and PEX are all drivers of medical cost of glaucoma in Sweden. Further, the variables are predicting cost independently of each other.

PSS6

COST-EFFECTIVENESS OF INTERMITTENT VS. CONTINUOUS ANTI-TNF ALPHA THERAPY IN PLAQUE PSORIASIS

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OBJECTIVE: To assess the cost-effectiveness of intermittent vs. continuous anti-TNF alpha therapies in chronic plaque psoriasis. **METHODS:** An economic model was constructed to estimate the cost per month in remission for intermittent etanercept 25 mg twice weekly (biw) or 50 mg biw, continuous adalimumab or continuous infliximab compared with no systemic therapy (NST). Patients considered had chronic plaque psoriasis with both Psoriasis Area and Severity Index (PASI) and Dermatology Life Quality Index (DLQI) > = 10 at baseline, and so would be eligible for anti-TNF alpha treatment under UK guidelines. Remission was defined at patients experiencing an improvement of at least 75% of their baseline PASI. Response rates were taken from registration studies for each agent: maintenance of response with continuous therapy and likelihood of response to intermittent therapy were extrapolated from published studies to a time horizon of ten years using a Markov process. Costs were estimated from a UK payer perspective including drug cost, administration visits and hospital stay for treatment failures. **RESULTS:** Cost per month in remission for each therapy compared with NST was estimated to be: GBP162 (95% CI: 93–287) for etanercept 25 mg biw; GBP418 (337–531) for etanercept 50 mg biw; GBP1,867 (1,643–2,136) for infliximab and GBP588 (452–804) for adalimumab. The cost-effectiveness ratios for continuous therapies were sensitive to the criteria used for withdrawal from treatment. The cost-effectiveness ratios for intermittent therapy were sensitive to the duration of treatment interruption achieved and response rate after therapy re-introduction. All regimens were found to be particularly appropriate in psoriasis patients with severe disease at baseline. **CONCLUSION:** The model found intermittent treatment with etanercept to be more efficient than continuous treatment with other anti-TNF alpha therapies, as it allows patients to be maintained in response at lower drug cost.

PSS7

THE COST-EFFECTIVENESS OF RANIBIZUMAB COMPARED TO PDT-V AND BSC FOR THE TREATMENT OF AGE-RELATED MACULAR DEGENERATION IN CANADA

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OBJECTIVE: To evaluate the cost-effectiveness of ranibizumab versus photodynamic therapy with verteporfin (PDT-V) and best standard care (BSC) for the treatment of all wet age-related macular degeneration (AMD) lesion subtypes (predominantly classic (PC), minimally classic (MC) and occult lesions (OC)) in Canada. **METHODS:** A ten-year Markov model with three-month cycles was adapted to the Canadian setting to simulate the evolution of visual acuity (VA) levels in subfoveal wet AMD patients according to Canadian guidelines. Analyses were performed from the perspective of the Ontario Ministry of Health with each AMD subtype modeled separately. The initial distribution of patients across VA levels followed the distribution observed in MARINA and ANCHOR (sham controlled phase III randomized multicentre clinical trials) at randomization. Transition probabilities were based on data from the same trials. Treatment with 0.5 mg ranibizumab was assumed, with nine injections in year 1 and six injections in year 2. Treatment duration was assumed to be one year for PC and two years for MC and OC lesions. Five clinicians completed a resource use questionnaire from which therapy and adverse event costs were estimated (2007 CDN$). Quality-of-life estimates were obtained from a time trade-off study carried out in a sample of the UK general population. Outcomes were measured in terms of quality-adjusted-life-years (QALY) and discounted (along with costs) at 5% annually. One-way and probabilistic sensitivity analyses were performed to estimate uncertainty around incremental cost-effectiveness ratios (ICER). **RESULTS:** Ranibizumab demonstrated cost-effectiveness relative to PDT-V and BSC in all lesion types assuming a $50,000 threshold. The ICER for PC lesions was $4,167/QALY and $21,857/QALY relative to PDT-V and BSC respectively. For MC and OC lesions the ICER was $37,363/QALY and $38,151/QALY respectively relative to BSC. **CONCLUSION:** Ranibizumab offers good value for money compared to current standard treatments for all wet AMD lesion types.

PSS8

ESTIMATING COST-EFFECTIVENESS OF TOPICAL OCULAR HYPOTENSIVES FOR MAINTAINING PERSISTENT THERAPY USING AREA UNDER THE SURVIVAL CURVE

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OBJECTIVE: To compare cost-effectiveness of topical prostaglandins for maintaining persistency during the first 2 years after initiating therapy. **METHODS:** Data derived from Ingenix managed care database. Patients with latanoprost (LAT), bimatoprost (BIM), travoprost (TRAV) dispensed between Janaury 1, 2004–December 31, 2004 screened for inclusion. Index agent = first agent filled; index date = fill date. Patients excluded if: < 40 years old; not continuously enrolled for 180 days before index date; had any ocular hypotensive dispensed or no glaucoma diagnosis within 180 days before index date. Data censored at the earliest of end of enrollment; end of study (December 31, 2005); or upon adding/switching to a new agent. Cox regression (adjusted for age, gender, recent diagnosis of preglaucoma/ocular hypertension) used to compare relative risk of discontinuation of initial prostaglandin and produce survival (on therapy) plot over first 720 treatment days for each prostaglandin. Area under survival curve used to estimate expected days on therapy. **RESULTS:** A total of 9124 patients met inclusion criteria (LAT, n = 5816; BIM, n = 1665; TRAV, n = 1643). Relative risk of discontinuing index prostaglandin over first 2 years was 8.3% higher for BIM ($p = 0.016$) and 24.4% higher for TRAV ($p < 0.001$). Within the first 720 days, expected days of uninterrupted, continuous therapy were estimated as 245 for LAT, 226

for BIM, and 203 for TRAV. The mean drug cost (AWP) was estimated from actual claims as LAT, $301 (95% CI: $293-$309); BIM: $364 (95% CI: $344-$384); TRAV: $278 (95% CI: $263-$294). Compared to TRAV, incremental cost effectiveness ratio of LAT was $0.56 and of BIM was $3.91 per additional day of uninterrupted therapy. **CONCLUSION:** Patients do not remain on ocular prostaglandins longer than six to seven months before therapy interruption/discontinuation. Patients using LAT stayed on therapy longer than those using BIM or TRAV and at a lower cost per additional day of therapy than BIM.

PSS9

A COST-EFFECTIVENESS ANALYSIS OF TNF-ALPHA INHIBITORS IN COMPARISON TO OTHER STRATEGIES IN THE TREATMENT OF MODERATE-TO-SEVERE PSORIASIS: A DECISION ANALYSIS MODEL

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OBJECTIVE: In comparison to traditional treatment options, TNF-á inhibitors have shown promise in increasing the clearance of psoriatic lesions and improving the quality-of-life of patients with moderate-to-severe psoriasis. They are however associated with higher costs and side-effects. The study objective was to compare the cost-effectiveness of TNF-á inhibitors to other psoriasis treatment strategies. **METHODS:** The cost-effectiveness of ten treatment options from three drug classes- TNF- á inhibitors, systemic therapies and phototherapy- were evaluated using a decision analysis model constructed using DATA Treeage. The probabilities of success were obtained from PASI-75 scores from published clinical trials. The annual drug costs were obtained from the Drug Topics Red Book and published clinical trials. Additional costs associated with treatment, which included annual pharmacy costs and costs for professional and institutional services, were obtained from published reports. Incremental cost effectiveness ratios (ICERs) were calculated for additional cost divided by incremental PASI-75 values, and were estimated relative to the drug with the lowest cost. Multiple sensitivity analyses were performed to determine the robustness of the findings. **RESULTS:** Phototherapy was found to be the most cost-effective treatment option with an ICER of $16,435.89/PASI-75, relative to systemic therapy. The most cost-effective TNF-á inhibitor was infliximab, with an ICER of $15,733/PASI-75, relative to adalimumab. Infliximab had the highest drug acquisition cost ($21,250) among the 10 treatment strategies. While Goekerman therapy with a PASI-75 score of 100 had the highest clinical effectiveness among all the treatment strategies examined, the more effective TNF-á inhibitor was infliximab, with a PASI-75 score of 82.3. Sensitivity analysis indicated that the results were affected by the model assumptions. **CONCLUSION:** Thus, phototherapy was found to be the more cost-effective treatment option in this analysis. It is expected that the cost of TNF-á inhibitors will be lower in the future.

PSS10

COST-EFFECTIVENESS OF ANTI VEGF THERAPIES FOR WET AGE-RELATED MACULAR DEGENERATION—AMD IN BRAZIL: THE PRIVATE PAYER PERSPECTIVE

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OBJECTIVE: To determine the cost-effectiveness ratio for quarterly injections of Ranizumab in the treatment of Wet AMD, in Brazilian HMOs scenario. **METHODS:** A cost-effectiveness analysis from the private payers perspective, with a time horizon of five years were conducted. A decision tree with a Markov chain considering the probabilities of increasing, decreasing or maintaining visual acuity (VA) through five health states based on VA from 20/40 to 20/400, were performed. Study comparators examined were Ranibizumab (RAN), and Pegaptanib Sodium (PEG). The clinical aspects regarding benefits (Vision Year Gained) and probabilities of transition data were extract from a meta-analysis of randomized clinical trials for the alternatives. Treatment costs including adverse events were collected from private payers reimbursement reference list for professional, procedures and diagnostics fees and the drugs costs were collected from manufactures price list. Costs and benefits were validated by a panel of Brazilian specialists through the Delphi technique. The discounting rate was 3% for costs and benefits, the results were converted in US Dollars (R$ 1.8/USD 1.00). A one-way sensitivity analysis was performed. **RESULTS:** Patients using Ranibizumab get more benefits (RAN = 2.66 per vision year gained; PEG = 2.00 per vision year gained), with the lowest total cost per treatment (RAN = $29,653 USD; PEG = $30,093 USD) and the lowest cost per QALY (RAN = $11,148 USD/vision year gained; PEG = $15,046.5 USD/per vision year gained). Incremental analysis showed Ranibizumab to be the dominant alternative. Net benefits are greater with Ranibizumab independent of willingness to pay. The sensitivity analysis on efficiency and costs of Ranibizumab results show that the results are sensitive to the type of lesion treated. **CONCLUSION:** Ranibizumab is the dominant therapy; it offers better benefits in vision years gained at the lowest cost. The results are sensitive to the type of lesion treated, showing the need of guidelines to assure the best resource allocation.

PSS11

A COST-EFFECTIVENESS ANALYSIS OF BRIMONIDINE/TIMOLOL

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OBJECTIVE: To determine the incremental cost-effectiveness of brimonidine/timolol versus dorzolamide/timolol for lowering intraocular pressure (IOP). **METHODS:** A cost-effectiveness analysis was performed using clinical data from 2 investigator-masked, randomized, 3-month, parallel-comparison studies performed at 10 sites. In a post-hoc analysis of those patients receiving monotherapy treatment for IOP lowering (either brimonidine/timolol or dorzolamide/timolol) for three months, the proportion of patients at various IOP levels were calculated and statistically compared. A three month supply of each drug was calculated based on their respective WAC price and bottle size (5 ML brimonidine/timolol and 10 ML dorzolamide/timolol). The incremental cost-effectiveness ratio (ICER) was calculated as the difference in drug cost divided by the difference in the percentage of patients meeting the IOP threshold at three months between brimonidine/timolol and dorzolamide/timolol. **RESULTS:** A 3-month supply of brimonidine/timolol and dorzolamide/timolol were $169.83 and $154.40, respectively yielding a cost difference of $15.44. The proportion of patients at lower IOP thresholds was consistantly higher with brimonidine/timolol compared to dorzolamide/timolol resulting in a statistically significant incremental benefit for the thresholds from less than 17mmHg to less than 12mmHg. The associated ICER s for those thresholds range from $55.12–$85.75 per the percentage of patients reaching the IOP threshold. **CONCLUSION:** We calculated brimondine/timolol to be more cost-effective than dorzolamide/timolol. Given the importance of achieving target IOP, both cost and effectiveness should be considered when evaluating combination therapies for glaucoma.